AMENDMENTS TO CLAIMS

Please cancel claims 8 and 9.

Please add the following new claims 10 and 11:

10 (new). A method for emitting chemiluminescence from an acridinium ester in an immunoassay, a hybridization assay or an immunoblot assay, wherein said ester is 4-[2-(succinimidyloxycarbonyl)ethyl]phenyl-10-methylacridinium-9-carboxylate fluorosulfate, comprising reacting at a pH of 6 to 10 said acridinium ester and a superoxide anion produced in situ by electrochemical reduction of oxygen dissolved in an electrolyte using electrodes in the presence of a flavin compound, wherein said acridinium ester is attached as a label to a reagent in said immunoassay, hybridization assay or immunoblot assay.

11 (new). A method of detecting a substance to be examined in a sample in an immunoassay, hybridization assay or immunoblot assay, comprising, binding a chemiluminescent labeled substance having affinity for said substance to be examined with said substance to be examined in a sample to produce a complex of said substance to be examined and said chemiluminescent labelled substance having affinity therefor; separating said complex; reacting said chemiluminescent label with a superoxide anion at a pH of 6 to 10, said label being a 4-[2-(succinimidyloxycarbonyl)ethyl]phenyl-10-methylacridinium-9-carboxylate fluorosulfate; wherein said superoxide anion is produced in situ by electrochemical reduction of oxygen dissolved in an electrolyte using electrodes in the presence of a flavin compound; and measuring luminescence of said chemiluminescent label to detect said substance to be examined.